

# E-NARST NEWS

National Association for  
Research in Science Teaching

*Organized to improve science  
teaching through research*

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## Message from the President

*Penny J. Gilmer, NARST President*

### Invitation to Attend the NARST 2008 International Conference

The theme of our annual international conference is Impact of Science Education Research on Public Policy. We have two keynote speakers on this topic (for details, see below), plus many of the symposia and paper sessions relate to this theme.

Our conference hotel, is the Baltimore Marriott Waterfront, at 700 Aliceanna Street, Baltimore, Maryland 21202, USA. I am pleased to report that this hotel is beautiful. President-elect Charlene Czerniak, Executive



Penny J. Gilmer, President

Director Bill Kyle, Robin Turner, from our management company and I all visited the hotel and we had lunch there last October. The location is right on the Baltimore Harbor, and the conference rooms and the guestrooms are lovely.

The dates for the conference are Sunday, March 30, 2008 until noon on Wednesday, April 2nd, 2008. We moved the Awards Luncheon from the last day of the conference to Tuesday, April 1st, so more people can attend, and we will have more time to congratulate the awardees. You can go on a photo tour of the hotel and its environs by going to the hotel's Web site: <http://www.marriott.com/hotels/travel/bwiwf-baltimore-marriott-waterfront/>.

When you go to register on-line for the conference, you will see there are three pre-conference workshops on Sunday. Two workshops end by noon, and these are sponsored by the Research Committee (Research Agenda in Science Education and the Equity and Ethics Committee (Building a Community of Scholars in NARST)). The Research Committee's second sponsored workshop (Using Video to Support and Study PTL) extends until 2 PM.

We have a full program for you. We received 660 proposals, with an acceptance rate of 60-70%.

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## The theme of the 2008 NARST international conference is Impact of Science Education Research on Public Policy

**Sunday** at 12:30 PM the general sessions begin. On Sunday afternoon we have Sessions #1, #2, and #3, followed by the Membership and Elections Committee-sponsored Mentor-Mentee Nexus from 6-7 PM. I invite you to attend the Presidential Welcome Reception, which starts at 7 PM and extends to 9 PM.

**Monday** is our first full day. NARST committee meetings start at 7 AM (with some breakfast food supplied for committee members). On Monday morning the Awards Committee meets (including Dana Zeidler, NARST Board member who chairs the Awards Committee, plus the two chairs of each Awards subcommittee). Tuesday morning the subcommittees for each NARST award will meet at 7 a.m.

Our first plenary speaker on Monday is Marcia Linn, Professor at University of California, Berkeley, speaking on "Science, Technology, and Policy," at 8:30 AM. Next will be session #4, followed by a new tradition of having the NARST Business Meeting at noon. Attendees of the Business Meeting will get a free box lunch. At the Business Meeting you will get an update on NARST committee business, including hearing from Bill Kyle, our NARST Executive Director about NARST's excellent financial balance. We would like to get feedback from our members at this Business Meeting.

### From the E-NARST NEWS Editor

*Barbara Crawford, Editor*

We are pleased to bring you this latest issue of E-NARST NEWS to inform you of committee initiatives and opportunities for NARST members to participate in the Association. Be sure to visit our newly designed website for updated information on calls for projects and additional information on the 2008 Annual Conference in Baltimore. In this issue President Penny Gilmer highlights the keynote speakers and other sessions at the upcoming 2008 Annual Conference program, and Executive Director Bill Kyle provides a message about the Association's strength. President-elect Charlene Czerniak invites you to be involved in the NARST standing committees. Several committee chairs report on their committee's recent endeavors. The Equity Committee announces formation of a new Ad Hoc Committee. Finally, there are suggestions on reducing our ecological footprint. This is my last issue serving as Editor of E-NARST NEWS. Carla Zembal-Saul will take over this spring as Chair of the Publications Advisory Committee, when my term comes to a close. Thanks once more to President Penny Gilmer for many of her wonderful photos in this issue!



Valarie Akerson, Angie Calebrese-Barton, Randy McGinnis, Carla Zembal-Saul, and Barbara Crawford talk during a break in the October Board Meeting.

### NARST upcoming Annual Conference Sunday March 30th until noon

**Wednesday, April 2nd, Baltimore, MD.**

On Monday afternoon we have sessions #5, #6, and #7. Evening activities include the Graduate Student Forum from 6:30 – 7:30 PM, and starting at 6:30 PM, the Journal of Research in Science Teaching Editorial Board meeting and dinner will be sponsored by Wiley.

**Tuesday** will start with more committee-sponsored sessions, including meetings of Awards Committee subcommittees (with some breakfast food supplied for committee members). If you serve on any of the NARST standing committees or ad hoc committees, you should plan to attend both the Monday and Tuesday committee meetings. Your committee chair will let you know on Monday if your committee will also meet on Tuesday morning.

Session # 8 follows the committee meetings on Tuesday morning. Our second keynote speaker, Peter Fensham from Australia, will speak on Closing the Gap Between Research and Policy in Science Education. Following Fensham's keynote address is our Awards Luncheon and my presidential address to you. The Awards Luncheon is planned to start at 11:45 AM.

After lunch on Tuesday come Sessions #9 and #10, followed by the Membership and Elections Committee's sponsored session, New Researcher and Junior Faculty Early Career Discussion, which will overlap somewhat with the Australian journal, Research in Science Teaching (RISE), having its first Editorial Board meeting at a NARST conference, sponsored by Springer, Tuesday late afternoon. For dinner, please join us if you are interested for the Equity Dinner, starting at 7 PM, or the FARSE session, which is always a lot of fun at 8 PM! Details will be forthcoming by e-mail.

**Wednesday** will start with Strand meetings (with some breakfast food supplied for strand attendees). Your current strand coordinators and the new one selected by President-elect Charlene Czerniak for 2008-2010 will organize the discussion, to get feedback from NARST members. Any member can attend the Strand Meeting that is of most interest to the member. The Strand Coordinators will encourage discussion of possible symposia or paper sets for the 2009 NARST meeting. Sessions #11 and #12 will close the conference at noon.

For members of the NARST Executive Board, we meet starting Saturday, March 29th from 8:30 AM- 5 PM, and Sunday morning, March 30th from 8 AM – noon, and then a shorter Board meeting following the conference on Wednesday, April 2nd from 2 PM – 6 PM.

We paid attention to the feedback regarding the 2007 NARST conference using the on-line evaluation. Using this feedback we revisited the conference format to alleviate some problems cited by the conference attendees. We hope you will provide feedback again this year!

This year we can already login to the Members Only Web site within the NARST Web site <http://www.narst.org/>, and you may renew your membership and register for the annual conference all on-line. Bill Kyle emailed your username and password, if you were a member last year (on December 13, 2007). I just used the site myself to renew my membership in NARST and to register on-line for the conference. I could renew and register easily and could charge it to my credit card. Therefore, I urge you to do so yourself, so you don't have to pay any late fees. You should renew your membership first, as the rate for the conference is higher if you are not a NARST member.

I recommend that you make your reservations for the hotel as soon as possible too. A link is provided on the NARST Web site: <http://www.narst.org/annualconference/2008conference.cfm>. The room rate is \$199/night but you must make the reservation by March 7th to get this rate. Also we may run out of rooms, so I recommend sooner rather than later. The NARST contract provides free Internet access for those NARST registrants who are staying on the Baltimore Marriott Waterfront.

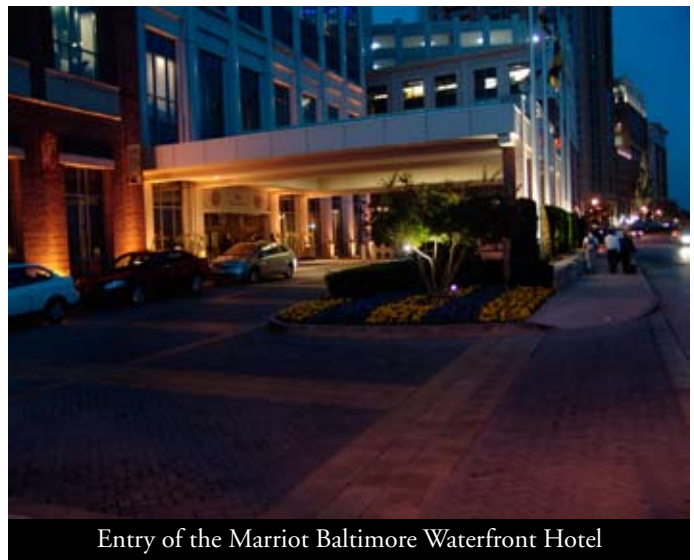


President Penny Gilmer welcomes you to attend the 2008 NARST International Conference in Baltimore.

I look forward to seeing you in lovely Baltimore in late March-early April 2008!



Waterfront view of the Conference Hotel



Entry of the Marriot Baltimore Waterfront Hotel



President-Elect Charlene Czerniak and Executive Director Bill Kyle look at a poster display in one of the exhibit rooms at the Baltimore Marriot Conference Hotel

## Message from the Executive Director

*The Association's strength is clearly linked to its diverse constituency*

**Bill Kyle, Executive Director**

Greetings! As we enter the New Year, it is time to remember to renew your NARST membership. Membership dues will remain at the same level as they have for a number of years. NARST is able to maintain its exceptionally low membership rate for a number of reasons. First, and foremost, is the loyalty of our members who continue to support the Association. Your scholarly contributions to JRST and the annual meeting offer the vibrancy and intellectual stimulation that sustains the Association. Second, JRST ~ our internationally acclaimed Association journal ~ continues to accrue royalties that enable NARST to accomplish as much as it does to support and enhance opportunities to improve science teaching and learning through research. Finally, the NARST leadership offers the kind of organizational guidance and direction to ensure that the Association continues to be fiscally sound. The Association's strength is clearly linked to its



Bill Kyle, Executive Director with Dana Zeidler,  
NARST Board Member

diverse constituency. In the end, it is your Association as we continue to seek ways to improve and expand our offerings and meet the needs of our most valuable asset ~ our community of NARST members.

I urge you to visit the new NARST website <http://www.narst.org> on a regular basis. As the website continues

to evolve, you will find it to be a valuable source for Association news and information. And, beginning with the 2008 membership renewal process, you will be able to renew your membership through the Info section on the NARST website.

### **New membership category in 2008 for individuals residing in countries with a United Nations Development Programme (UNDP) Human Development Index (HDI) of .700 or below**

I would also like to bring to your attention a new membership category for 2008, which was approved by the Board at its meeting in October 2007. In addition to the Regular, Student, Emeritus and Sustaining membership categories, NARST will have a new membership for individuals residing in countries with a United Nations Development Programme (UNDP) Human Development Index (HDI) of .700 or below. This new membership category will include JRST and will have the same \$50 membership fee as Student and Emeritus members who receive JRST. For additional information on the UNDP HDI rankings, please refer to: <http://hdrstats.undp.org/indicators/1.html>. This membership will include individuals residing in countries ranking # 114 through # 177. I encourage every NARST member to recruit at least one new member to the Association in 2008. And, I particularly encourage you to identify science educators who reside in countries represented by our new membership category to join NARST so they can begin to enjoy all of the benefits of a NARST membership.

I look forward to seeing everyone at the 2008 Annual Meeting, which will be held at the Baltimore Marriott Waterfront Hotel. You will note when you register there is a slight increase in the conference registration fee. This is necessary since each of the past 3 years the conference

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## ANNOUNCING NARST COMMITTEE OPENINGS

by Charlene M. Czerniak, President-Elect

As President-elect, one of my responsibilities is to recommend to the NARST Executive Board appointment of new members to the eight NARST standing committees. The way that I got involved in NARST was by serving first on a number of committees - - Membership, Program, Awards, and Publications. I became chair of the JRST award committee, and was later elected to the Executive Board. I had an input on NARST decisions and became increasingly involved within the organization.

Each year we solicit members who are interested in joining one of the committees. Participation in committee assignments is the best way to get involved in NARST and to influence decisions and policies. If you would like to serve, e-mail me and indicate on which committee you would like to serve, and what your qualifications and interests are to serve. There are a limited number of positions, so please state your case well. To serve on a NARST committee, you must be a member of NARST.

**Email your interest in serving on a committee by Friday, February 1, 2008.**

Please let me know of your interest by Friday, February 1, 2008. At that time, I will collate all the requests to serve and make my recommendation to the NARST Board of Directors on the membership for all standing committees. You will hear from me on our decision before the Annual Meeting in Baltimore.

When you come to the Annual Meeting, your committee will meet at least one morning at 7 AM (with a free continental breakfast that you can take into your meeting room).

*continued from page 4*

has actually cost more than the revenue generated. And, the annual meeting is supposed to be self-sustaining (that is, a central tenet of NARST annual meetings is that the costs should be borne by those attending the meeting, thus annual meeting expenses should not draw upon membership dues). The budget for the 2008 Annual Meeting has been prepared in accordance with this essential tenet. I invite you to attend the Business Meeting during the Annual Meeting so that you might enhance your understandings of the internal operations of NARST as an organization. Your contribution to this vital aspect of the organization will be most welcomed.

Please do not hesitate to contact me personally if you have any recommendations and / or concerns related to NARST and your membership in NARST. Your efforts to enhance science teaching and learning through research are greatly appreciated.

Best wishes for a healthy and prosperous New Year!

Committee Meetings will be posted in the NARST International Program schedule.

Some committees meet also (or only) for the second day, so check the schedule. You should plan to attend the committee meeting(s) and provide input during the meeting and contribute throughout the year in a timely fashion as your committee will have work to do. If you are on the committee, and you do not do your work in a timely way, you may be replaced. Therefore, this is a serious responsibility, but one in which you will learn about your committee's focus and its interaction within the organization and in our greater effort to improve science education worldwide. Camaraderie and networking opportunities formed with others on the committee are also enjoyable and rewarding.



Charlene Czerniak, President-Elect announces call for new committee members

Your appointment to the committee is for two or three years, depending on the committee. We have a rotating committee membership, so only part of the membership is new each year. You can get the details of how long the term is and how many members there are by going to see our Policies and Procedures manual (2005) at the NARST website.

We would like to encourage both US and international members to consider asking for a committee assignment. One goal is to have the composition of the committees reflect the membership. Since our 2007 international membership is approximately 30%, then we want our committees to reflect that percentage. NARST President Penny J. Gilmer started that effort last year to increase the international NARST members to serve on NARST committees, and we want to do that again this year. We all have so much to contribute and learn from each other, with the common goal of improving the teaching and learning of science worldwide.

The various committees are listed below with a brief description of each along with the number of openings and associated terms. If you are interested in being considered for one of the committees, please email me at:

Charlene.Czerniak@utoledo.edu

Committee appointments will be finalized by March 1st. New committee members will be contacted prior to our annual meeting in Baltimore, March 30-April 2. Please check the final program for information on when the committee to which you are assigned meets.

I am enjoying this opportunity to serve NARST and our members. We welcome your voice, input and participation.

The standing committees, their number of new members elected each year and their terms of office include the following:

### **Research Committee - 3 year term (Two Openings)**

The Research Committee develops, organizes and/or implements various professional development activities for the NARST membership, including special research topic pre-sessions at the Annual Meeting and research reviews and research-oriented documents specifically designed for internal use and member benefit; fills our allocated slots at the NSTA conventions by selecting and coordinating presentations made by NARST members at these meetings; conceptualize, develops, and disseminates reviews of research and white papers on appropriate topics.

### **Publications Advisory Committee – 3 year term (Two Openings)**

The Publications Advisory Committee recommends policy concerning the Association's publications, and develops and disseminates additional publications specifically designed for use by media, policy-makers, education officials, teachers, and other professional organizations. The committee monitors the process of development of publications initiated by the External Policy and Relations and Research Committees and it monitors and oversees updates.

### **External Policy & Relations Committee – 3 year term (Two Openings)**

The External Policy and Relations Committee reviews existing and/or controversial educational policies at the state, national and international levels and produces position papers based on research. These position papers should be based on current and innovative findings and distributed through the Publications Advisory and Research Committees to the membership, policy-makers, and the community-at-large. Note that these position papers may not necessarily reflect a unified position for NARST, but they are meant instead to add information from various perspectives of science

education research. These papers would assist policy-makers and the public-at-large to make more informed decisions. This committee also fosters the development of partnerships and collaborations with appropriate professional organizations and groups concerned with the quality of science teaching and learning.

### **Program Committee – 2 year term (15 Openings)**

The Program Committee assists the program chair in planning and conducting the annual meeting.

### **Membership & Election Committee – 3 year term (Four Openings)**

The Membership and Election Committee seeks new members from a variety of backgrounds and retains active members by soliciting interest in committee membership throughout the organization as well as for elected offices. In addition to developing a slate for annual elections, the committee is concerned with recruitment, retention, and responsiveness of the organization to members' interests.

### **International Committee – 3 year term with 2/3 of the members needing to be international (Four Openings)**

The International Committee recommends policy to the NARST Board concerning matters of international science education research; represents the concerns, interests and unique perspectives of international members; and, stimulates collaborations and exchange of ideas between NARST and other international science education organizations. The Chair serves as NARST's liaison to various international science education organizations.

### **Equity & Ethics Committee – 3 year term (Four Openings)**

The Equity and Ethics Committee provides leadership and guidance to the organization on issues of equity and

ethics including, but not limited to, gender, ethnicity, socioeconomic status, disabling conditions, sexual orientations, language, national origin and religion.

### **Awards Committee – 2 year term, each member serves as a chair for the Individual Award Selection Committees listed below (Three Openings)**

The Awards Committee oversees the work of the Award Selection Committees that solicit nominations and select winners for each of the NARST awards. The committee discusses issues related to equity and efficiency in the selection process, and the appropriateness of the award considering the NARST mission. If necessary, the committee recommends changes in awards or procedures to the Board of Directors.

#### **NARST Outstanding Paper Award (Six Openings)**

#### **Outstanding Doctoral Research Award (Six Openings)**

#### **Early Career Research Award (Three Openings)**

#### **Distinguished Contributions Through Research Award (Two Openings)**

#### **JRST Award (Seven Openings)**

To select the strand coordinators, I ask the current strand coordinators to recommend whom they think would be an excellent new upcoming strand coordinator.

## From the Editors of the *Journal of Research in Science Teaching (JRST)*

by J. Randy McGinnis and Angelo Collins

Annually, the JRST editorial team needs to replenish with new members approximately one-third of its 40-member editorial board. The appointment is for three years, contingent on performance. NARST policy requires that a member of the JRST editorial board must review each JRST manuscript. All NARST members (a) in good standing, (b) have published in JRST at least once, and (c) have experience as a JRST reviewer in Manuscript Central, may apply for this scholarly service. Duties include in-depth review of approximately 6 manuscripts yearly and attendance at the publisher's sponsored, annual JRST Editorial Board Meeting/Dinner at the National Association for Research Conference. Applications from International members are especially welcomed.

To apply, please submit by February 15, 2008:

- A letter of interest, which includes a list of up to four areas of expertise in science teacher education in which you would be comfortable reviewing manuscripts.
- A two-page curriculum vita (highlight publications in prominent refereed journals in science education and your previous reviewing or editing experience).

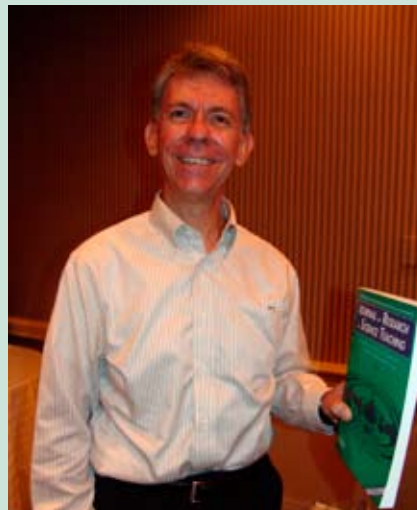
Please apply electronically, by emailing us at: [jrst@umd.edu](mailto:jrst@umd.edu). Use as a subject title: Attn: Editorial Board Application ('08).

If you have any questions please contact J. Randy McGinnis ([jmcginni@umd.edu](mailto:jmcginni@umd.edu)) or Angelo Collins ([Angelo.Collins@kfstf.org](mailto:Angelo.Collins@kfstf.org)), Editors, Journal of Research in Science Teaching.

**A Call for JRST Editorial Board Members— Apply by Feb15th**

### Call for Manuscripts for a Special Issue of JRST

We are pleased to announce a call for manuscripts for a special issue in JRST on "Learning Progressions." Guest Editors for this issue are Dr. Cindy E. Hmelo-Silver and Dr. Ravit Golan Duncan, Rutgers University. This special theme will explore how learning progressions can support deep and meaningful science learning in complex science classrooms and over extended period of time.



J. Randy McGinnis Co-Editor of JRST

The notion of learning progressions is not new, but there has been growing support for this approach. Recent policy reports, such as the National Research Council reports *Taking Science to School* (Duschl, Schweingruber & Shouse, 2007) and *Systems for State Science*

*Assessment* (Wilson & Bertenthal, 2005), as well as the National Assessment of Educational Progress 2009 Science Framework (NAGB, 2006), introduced learning progressions as a means for bridging science learning and assessment and achieving better coherence across standards and curriculum.

Learning progressions describe, "successively more sophisticated ways of reasoning within a content domain that follow one another as students learn" (Smith et al., 2006, p. 1). These progressions focus on small sets of core ideas and practices and map out the intermediate steps or pathways through which learners can deepen their understandings of these core disciplinary ideas and practices. They describe learning as it occurs over longer periods of time- multiple grades and grade bands. These progressions provide guidelines for developing targeted instruction and assessments to gauge student understanding as it develops over time. Recently several such learning progressions have been developed in environmental sciences (Songer, Kelcey & Gotwals, 2006), evolution (Catley, Lehrer & Reiser, 2005), and atomic-molecular theory (Smith et al., 2006).

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## NEW WEBSITE LAUNCHED AND UPCOMING SPONSORED SESSION ON CONNECTING RESEARCH TO PRACTICE

### *Report of the Publications Advisory Committee*

by Barbara Crawford, and Carla Zembal-Saul Co-Chairs

The Publication Advisory Committee recommends policy concerning the Association's publications. The Chair of the Publication Advisory Committee serves as a liaison to the JRST Editorial Board.

Procedures:

#### *Thanks to Our Committee Members:*

(08) Bill McComas	mccomas@uark.edu
(09) Hedy Moscovici	Hmoscovici@csudh.edu
(10) Renee' Schwartz	r.schwartz@wmich.edu
Randy McGinnis (JRST Co-Ed)	jm250@umail.umd.edu
Angelo Collins (JRST Co-Ed)	a.collins@kstf.org

Newly designed NARST Website.

Our new NARST web site was launched in June 2007.

<http://www.narst.org>

Thanks to Ellen Zidar of Podi (Potomac Digitek) for building the new site and to President Penny Gilmer for her helpful suggestions and to members of the Publications Advisory Committee.

Visit our new NARST website often, and stay tuned for additional features and updates.



Barbara Crawford and Carla Zembal-Saul, Co Chairs of the Publications Advisory Committee

We are happy to announce that enhanced functionality was recently introduced, providing NARST members with the ability to update their member profiles, renew membership dues, and register for events online. "Members Only" login capabilities allow for secure information management and credit card payments. User names and passwords were emailed to current members of NARST in mid-December. If you experience difficulties with the login process, please contact Heather Hassell at (703) 234-4106 or email inquiries may be sent to: [info@narst.org](mailto:info@narst.org).

**Visit our NARST Web site**

**<http://www.narst.org>**

Publications Advisory Committee members are working with our Web developer to create additional functionality, such as adding breaking news and announcements on the Homepage, with an associated RSS feed for those members who wish to subscribe to the web site.

Watch for an announcement of a newly created position, NARST Website News Manager, that will be advertised Spring 2008.

We continue to seek feedback on web site content. Please send your comments and ideas to Barbara Crawford ([bac45@cornell.edu](mailto:bac45@cornell.edu)) and Carla Zembal-Saul ([czem@psu.edu](mailto:czem@psu.edu)), Co-chairs of the Publications Advisory Committee

## Sponsored Symposium on RTP to be presented at the Annual Conference

One of the current initiatives of the NARST Publications Advisory Committee is to develop better ways to translate and communicate our research findings to practitioners and the general public. Some ideas include developing brief summaries of current research to share with classroom teachers, and to sponsor a booth at the upcoming NSTA conference in Boston and distribute publications.

### Please join us at the RTP (Research to Practice) symposium at the Annual Conference

We are sponsoring a symposium on this topic at the Annual Conference in Baltimore. Panel Members, among others include Sandi Abell and Julie Luft. In this symposium we would like to exchange ideas about innovative and effective ways to move our research into practice (K-20) and to the general public, through practically-based publications, both electronic and paper. We refer to these as RTP (Research to Practice) briefs in the form of e-publications to be posted on the NARST website. We anticipate these briefs will include some combination of podcasts, blogs, wikis, and pdf files.

We are eliciting ideas from the NARST membership regarding how we can better communicate our research on science education to K-20 teachers, as well as to informal learning centers. We anticipate this panel will generate useful and innovative strategies for how we can accomplish this goal, as well as address the challenges and roadblocks we need to overcome. Panel members will present their ideas and experiences during 5-10 minutes each, followed by interaction with the audience. Please join us at this RTP symposium.

### Procedure for Submitting Proposals for NARST Monographs

Some researchers have inquired about how one might go about suggesting and developing a published Monograph sponsored by NARST.

Please follow the procedure described below:

1. The Committee periodically puts a call for monographs on the Listserv, web page and in NARST News.
2. All proposals are received by the Committee Chair. (In some cases, the Committee is contacted in advance of the proposal to 'test the feelings' of the Committee. This can save a lot of time and effort if the topic is one that has little chance of being approved.)
3. Proposals are reviewed by committee members and three additional NARST members.
4. Reviews are sent back to Chair (within one month) and the Chair synthesizes the comments of the reviewers.
5. The Chair recommends to the Board whether a monograph proposal should be accepted or not.
6. The Chair informs the committee and proposers of the Board action.

### *Possible Topics*

*continued from page 8*

This special theme issue solicits empirically based research and scholarly position papers that develop a learning progression, and /or empirical validation of learning progressions and their contribution to student learning in science.

### *Timeline*

#### **Manuscript Submission deadline:**

June 15, 2008

#### **Reviews returned:**

September 15, 2008

#### **First revisions due:**

November 1, 2008

#### **Second revisions due:**

January 15, 2009

#### **Expected publication:**

May Issue, 2009

Additional information is published in JRST, v. 44, issue 10).

Inquiries concerning this special issue should be directed to Cindy Hmelo Silver (chmelo@rci.rutgers.edu) or Ravit Golan Duncan (rgduncan@rci.rutgers.edu) at Rutgers University, 10 Seminary Place, New Brunswick NJ 08901-1183.

## Equity and Ethics Committee Reports on Three Initiatives

by Angela Calabrese Barton and Valarie Akerson, Co-Chairs

The Equity and Ethics Committee has been quite busy this fall, working to expand our Scholars Program, putting together our Spring Pre-Conference Workshop, Scholars Session and Special Symposium, and redefining our committee charge. Below we report on three key initiatives that we have worked on this fall: The new Ad Hoc Committee on the History and Future of Equity Issues in NARST, the expansion of our Scholars Program, and a new policy for issues of discrimination within the organization. We would like to thank our Committee members for their on-going hard work and dedication to NARST:

Angela Calabrese Barton, Chair	(08)	Valarie Akerson, co-Chair	(10)
Scott Dantley	(08)	Joan Lindgren	(08)
Heidi Carlone	(09)	Maria Rivera	(09)
Bryan Brown	(09)	Claudia Melear	(10)
Lisa Martan Hansen	(10)	Felicia Moore	(10)
Jrene Rahm	(10)		

### Ad Hoc Committee on the History and Future of Equity Issues in NARST.



Valarie Akerson and Angie Calabrese Barton Co-Chairs of the Equity and Ethics Committee

We are pleased to announce the formation of a new Ad Hoc Committee on the History and Future of Equity Issues in NARST. The Committee purpose is to synthesize the organization's collective work on issues of equity in science education, internationally, and to propose critical next steps for the organization regarding an equity agenda. The Ad Hoc Committee is co-chaired by the co-Chairs of the Equity and Ethics Committee, includes experts on equity issues in science education, and reflects the diversity of perspectives and history of NARST.

Ad Hoc Committee Members: Angela Calabrese Barton, Valarie Akerson, Mary Atwater, Nancy Brickhouse, Bryan Brown, Cory Buxton, Okhee Lee, Maria Rivera Maulucci, Jomo Mutege, Eileen Parsons, Leoni

Rennie, Alberto Rodriguez, Kate Scantlebury. If you have ideas that you believe the committee should take up, please send them along to any of the committee members. Thank you!

### Expansion of the Scholars Program.

The Equity and Ethics committee is happy to provide scholarships that support early career science educators from underrepresented groups to attend NARST conferences. In the past we have been able to provide ten such scholarships to advanced doctoral students, postdoctoral fellows, and junior faculty. This year we are happy to report that the NARST Board approved funding to provide fifteen \$500 scholarships to attend the 2008 NARST conference in Baltimore, MD, and to contribute to science education research, scholarship, and leadership. As in previous years, in addition to receiving the scholarship, recipients will be invited to attend a pre-conference workshop to develop support for those from underrepresented groups. This year's pre-conference workshop will include keynotes from Felicia Moore and Alejandro J. Gallard. In addition, there will be breakout groups targeted to support pre-proposal

doctoral students (facilitated by Line Augustin and Shawn Holmes) post-proposal doctoral students (facilitated by Bryan Brown and Sanghee Choi), early career faculty of less than three years experience (facilitated by Bhaskar Upadhyay) and early career faculty of three or more years of experience (facilitated by Sumi Hagiwara). The entire 2008 Equity and Ethics pre-conference workshop is being organized by Maria Rivera Maulucci. We are delighted to help support underrepresented colleagues through these scholarships and events.

## New Policy Statement on Discrimination

NARST has long been committed to promoting excellence through diversity. The Equity and Ethics Committee of NARST is deeply committed to supporting all members of NARST as the organization continues to grow and change. One of the efforts we have undertaken this year has been to research how the organization handles instances of harassment, discrimination and intolerance. In so doing, we learned that NARST has no official policy statement or procedures in place to support individuals who may encounter harassment or discrimination within officially sanctioned NARST activities. We also discovered that many other organizations our size also do not have policies or procedures for handling issues of harassment, however AERA, the primary organization for educational researcher in the USA and internationally does have such a policy. Working closely with the leadership in AERA, the Equity and Ethics Committee of NARST crafted such a statement for NARST. We are pleased to announce that as of the Fall 2007 Board meeting, NARST now has an official policy state for issues of harassment and intolerance. We believe that this statement is vital to the continued growth of the organization. While we hope that this statement is never actually needed, we believe it is important for the organization to take a stand on what it means for professional organizations to value and respect diversity. You can find the new policy on the NARST Website.

## Research Committee Report by Randy Yerrick, Chair

Announcing Workshops for the 2008 Annual Meeting  
in Baltimore

The NARST Research Committee is charged with providing leadership in research for the NARST membership, including special topic pre-sessions and workshops at the Annual Meeting, research reviews, and research-oriented professional development tailored to the needs of the membership. We are pleased to welcome two new members to the committee—Anita Roychoudhury and Julia Clark. As a committee we have reviewed and selected the workshops for the 2008 Annual Meeting in Baltimore. We are certain members will benefit greatly from the following planned sessions and we look forward to your feedback. The workshops selected were:

### Workshop #1

*Title:*

Research Agenda In Science Education: An Examination of Three Domains of Inquiry

*Presenters:*

Patricia Simmons (chair), University of MO-St. Louis,  
Vincent Lunetta (Discussant), Penn State University  
John Penick (Discussant), North Carolina State University

### Workshop #2

*Title:*

Using Videocases to Support and Study Preservice Teacher Learning: Two Approaches

*Presenters:*

Kathleen Roth, LessonLab Research Institute in Santa  
Monica, California  
Karen Givvin, Co-PI and Research Scientist  
Kathleen Schwille, Research Associate

Please check the upcoming program for the NARST Annual Meeting for further details to see which workshop best addresses your interests.

Our committee also has successfully completed a varied roster of research sessions to address vital issues in our field. One of these sponsored sessions is designed to assist the NARST membership in being more responsive to policies and directions for dictated by federal funding sources. With the major granting sources emphasizing an “evidence-based” design and evaluation for funded projects, it is essential that

science educators keep in step with techniques of analysis used in large-scale studies. The members of this research panel will discuss their attempts to employ Hierarchical Linear Models (HLM) of analysis to science education curriculum and instructional and assessment phenomena. There are many kinds of large-scale studies and analyses and specific issues related to quasi experimentation studies that do not take the forefront of NARST discussions, but that may have a profound impact on funding and future support of research institutions. It is important that the NARST membership be actively engaged in the public discourse surrounding large-scale studies and this panel will educate the membership of issues associated with large scale studies. To complement this session the Research Committee is cooperating with the



Randy Yerrick, chair NARST Research Committee

Equity and Ethics Committee in sponsoring a two-part professional development event discussing diversity and equity issues. Part 1 will be a pre-conference workshop to

build a community of scholars and share and discuss specific strategies for developing a research trajectory in the academy. Part 2 will be an invited session where a panel of experts will discuss progress in the field since the AAAS (1989) call of science for “all Americans” two decades ago. and examine promising strategies for teachers and researchers addressing equity in science classrooms.

## Revisiting NARST’s Current Strands.

The Research Committee has revisited the Strands, which guide proposal submissions for the annual meeting. In an attempt to make data driven decisions concerning future strand revisions the Research Committee conducted a survey after the annual meeting in New Orleans. We thank the members who responded. Though a more complete report will be available in the Spring, we provide here a cursory overview of the results.

Over 400 members responded representing assistant, associate, and full professors relatively equally, though one third of the respondents reported a job description other than tenure track faculty. More than two thirds of the members responding resided in colleges of education and

one-fifth in colleges of science. Members were asked a variety of questions about NARST’s current research strands. For example, members were asked to rank order the 14 research strands from most to least central to their work. Strand 1—Science Learning, Understanding and Conceptual Change was ranked the most relevant to 23% of the membership. Strand 7—Preservice teacher education ranked second most relevant to 15% and all other strands ranked most relevant to less than 7% of the membership. The strand ranking the most relevant to the smallest population responding was Strand 9—Reflective Practice.

Members were asked how many sessions they attend annually and whether or not they are published in their strand. Most members reported attending 4 or more sessions annually. Nearly one third of all respondents to the survey had published in the strands that they ranked in their top three most relevant. Members were also asked which of the research strands were in most need of revision. The strands that were recommended as in need of revision included: a) Strand 9—Reflective Practice, b) Strand 2—Contexts, Characteristics, and Interactions, and c) Strand 14—Environmental Education. Respondents’ reasons for revising, combining, or deleting strands varied greatly according to individual respondents’ interests. We will give a more detailed report in an upcoming issue of JRST.

## Facilitating Collaborations with Classroom Science Teachers

Finally, in an interest to facilitate collaborations among and between members of NARST and our affiliate NSTA the Research Committee is working with NSTA to create an online database for NARST members wishing to be identified as collaborators with classroom science teachers interested in research. (See Jonathan Singer’s report in this issue of E-NARST NEWS). Members of both organizations will develop a profile through this collaborative tool for self-identification of content, research interest, school demographics, and geographic proximity to facilitate this matching of mutual interests. These profiles will be searchable and editable for best results. Currently, we are in the process of developing a beta test site, which will include an engine for creating and cross-referencing meta tags for NARST and NSTA members. We look forward to seeing exciting collaborative research efforts between the organizations resulting from this cooperative venture. NARST members who have expressed interest via the membership survey should watch their email for development updates as this tool becomes available.

## NSTA's Building a Presence Network for Science

By Jonathan Singer, NSTA Research Division Director

In the last volume of E-NARST News and in the current issue, Randy Yerrick reports on an ongoing collaborative project between the NARST Research Committee and the NSTA Research Division. One goal of this collaboration



Jonathan Singer, NSTA Research Division Director

is to facilitate communication and involvement of practitioners in the process of science education research. The initial plan (as reported by Yerrick in the July, 2007 issue of E-NARST News) was to construct a searchable online database that was populated with profiles of researchers and teachers. Researchers could then search the database using a variety of parameters (e.g. content area, grade level, geographical region, etc) to invite and recruit teachers to work on a variety of research initiatives. A reciprocal search could be performed by practitioners that queried profiles of the researchers to elicit expertise regarding any number of research related issues. The general NARST membership was solicited in the most recent membership survey and over 250 members responded they were willing to construct profiles for use in the system.

Additional progress is being made on the project by integrating the use of NSTA's Building A Presence for Science Network (BAP). The BAP was initiated in 1996 with the goal of reducing the isolation of classroom science teachers and providing them with a means for 1) disseminating and exchanging information, 2) leadership development and, 3) promoting collaboration. The BAP consists of over 40,000 points of contact (a classroom teacher who is responsible disseminating information for his or her individual school building) from 34 states plus the District of Columbia. For more information on the BAP including the current states in the network can be found at <http://science.nsta.org/bap.asp>.

The BAP is currently available for use by science education researchers for recruiting classroom science teacher participation in research projects. The current procedure for accessing the BAP is very informal and simple. To begin the process prepare a one page summative document that includes such information as:

- 1) A summary of the research project
- 2) Brief introduction summary about the researchers
- 3) Roles, responsibilities, and potential compensation of any participants
- 4) Specific parameters regarding the type of participant(s)/classroom preferred
- 5) Contact information for where inquiries should be directed.

Then submit the summary via email to Dr. Joe Sciulli, NSTA Program Director at [jsciulli@nsta.org](mailto:jsciulli@nsta.org).

It is our hope that the electronic collaborative system outlined in Randy's previous Research Committee update will eventually replace this manual system, but until then please take advantage of the opportunities that the BAP can provide.

## **NARST Sessions at the ESERA 2007 Conference Report From the International Committee**

**Mei-Hung Chiu (Chair) and Saouma BouJaoude (Co-Chairs)**

**C**ontinuously Working to Encourage International Graduate Students and International Science Education Professionals

The International Committee continuously worked with international scholars on the scholarship program, mentoring program, and organizing two sessions for 2008 NARST annual conference. The activities are described below.

### **International Scholarships**

To keep continuously encouraging international graduate students, international science education professionals just starting their careers in science education, and international science education researchers to participate in NARST annual conference, the International Committee is able to expand the number of members to receive the scholarship up to 15 (increased 50 %) for 2008. Application deadline for the scholarships is December 14, 2007. (Email Mei-Hung Chiu [mhchiu" <mhchiu@ntnu.edu.tw] for further information.). Detailed information and the application form for the scholarships are posted on NARST website. The number of beneficiaries has been increased to show how NARST values the diversity and contribution of international scholars and students to be actively involved in NARST conference.

### **International Committee expands scholarships to participate in NARST annual conference to a total of 15**

#### **Mentor-Mentee Program**

The committee is continuing the mentoring program started in 2005. The purpose of the program is to help non-native English speaking international members of NARST improve the quality of English of their research manuscripts. For the past two years volunteers have assisted several mentees to complete their research work successfully. This year we continue inviting members to support for this program. Currently, we have matched several mentees' research interests with mentors from various backgrounds, such as conceptual learning, informal learning, teacher training, and nature of science. We continuously encourage your active involvement in supporting this program.



Mei-Hung Chiu, Chair of the International Committee

### **NARST Session at the ESERA 2007 Conference at Malmö University, Malmö, Sweden**

**A**s a continuation of the collaboration between NARST and ESERA (European Science Education Research Association), the NARST International Committee organized a research session at the biennial conference of

ESERA held at Malmö University, Malmö, Sweden between August 21 and 25, 2007. The title of the session was “Issues in Science Teacher Education”. The titles of the papers and the presenters were as follows:

- Investigating the meaningfulness of pre-service programs across the continuum of teaching in science education (IMPPACT Project): Exploring the links between pre-service programs, pedagogical beliefs and classroom performance by John W. Tillotson and Monica J. Young, Department of Science Teaching, Syracuse University.
- Evidence and explanation as a lens for learning to teach elementary school science as argument by Carla Zembal-Saul, the Pennsylvania State University.
- Minding the gap: The professional development of beginning secondary science teachers by Julie Luft, Arizona State University and Gillian Roehrig, University of Minnesota.
- Prospective science teachers’ development of pedagogical strategies for teaching science as inquiry in a museum setting by Barbara A. Crawford and Valery Lynn, Cornell University.
- The influence of problem-based learning professional development on science teachers’ pedagogical content knowledge by Ayelet Weizman, Mary A. Lundeberg, Matthew J. Koehler, Jan Eberhardt, Michigan State University.

Jonathan Osborne, King’s College, London and Saouma BouJaoude, American University of Beirut were discussants. The papers focused on issues related to science teacher education in the USA. The first paper explored the links between preservice programs, pedagogical beliefs, and classroom performance. This was followed by a paper that provided an in-depth examination of the development of three preservice elementary teachers’ understandings and practices for teaching science as argument, and another paper that investigated the professional development of beginning, induction, or newly qualified secondary. The third paper examined the influence of a museum internship on prospective science teachers’ views and practices of teaching science as inquiry, and the fourth paper reported on the influence

of problem-based learning professional development on science teachers’ pedagogical content knowledge. A lively discussion followed the presentation attended by several ESERA and NARST members, including the president of ESERA, Doris Jordi and Chairperson of the NARST International Committee, Mei-Hung Chiu.

Jonathan Osborne, King’s College, London and Saouma BouJaoude, American University of Beirut, discussants at ESERA paper set sponsored by NARST in Malmö, Sweden on issues on science teacher education in the USA.

### **NARST International Committee to Sponsor Seminar 2008**

The International Committee has organized a sponsored seminar titled Science Education reform in different countries that will have five papers presented from Australia, Israel, Singapore, and Taiwan. The discussant will be Professor David Treagust from Curtin University in Australia.



Board members from left to right around the table, Reindeers Duit, Jonathan Osborne (NARST Past President) Dana Zeidler, Charlene Czerniak, Saouma BouJaoude, Bill Kyle, and Mei-Hung Chiu

### **ESERA session to be presented at NARST 2008 Conference**

ESERA will present four papers at the NARST International Conference 2008. The topic for the symposium aligns with the main theme of the conference, titled The Impact of Science Education Research on Public Policy. The four papers will be presented by Franz



Bogner, University of Bayreuth, Germany; Jan Sølberg, Danish School of Education, University of Aarhus, Denmark; Andree Tiberghien, ICAR-CNRS, Université de Lyon, France; and Albert Zeyer, Marco Adamina, Francois Gingin & Peter Labudde, University of Zurich, Switzerland

## Invitation to Attend the International Committee Meeting at NARST 2008

The International Committee will invite 4-5 members to give 5-minute presentations on what science education programs are happening in his/her country at the Committee Meeting of NARST conference. If you are interested in sharing your experiences and expertise in regard to this issue please check the conference agenda for the meeting room and time), and please contact Mei-Hung Chiu at mhchiu@ntnu.edu.tw.

## Membership and Elections Committee

**Alan Harrison and Reinders Duit, Co-Chairs**

It is the duty of the committee to organize the selection of candidates both for President of NARST and Members of the Board of Directors. The membership is kindly asked to take the few minutes needed to vote when the referring message will be sent in early 2008.

The committee also prepared three sessions for the Annual Meeting in Baltimore:

(1) Mentor Mentee Nexus (organized by Brian Fortney, Laura Henriques, Julie Grady)



Reinders Duit, Co-Chair of Membership and Elections Committee

This session provides early career members a unique opportunity to be introduced into the community of science educators and to be made familiar with the art of making the best of attending a conference by an experienced colleague. The Mentor Mentee Nexus meets the first evening of the conference to bring mentors and mentees together. It is basically up to the mentor-mentee-pairs in which way they want to organize to meet a couple of times during the conference. If you are in your early career and you want to be guided by a mentor, please contact Brian Fortney. Please let him know your research interests. Experienced colleagues are kindly asked to be ready for mentoring. The experiences of those who did this service are very positive. The time you spent is well invested also for you as beginners use to ask questions that make us clear that we may take many things for granted without critical reflection any more. Please let Brian know that you are willing to be a mentor and let him also know your research interests. Here is Brian's email: bfortney@mail.utexas.edu

(2) New Researcher and Junior Faculty Early Career Discussion (organized by Catherine M. Koehler and Jim McDonald)

The first steps into a career in science education may be very difficult for the young academic. A venue is provided where problems, ideas and issues can be discussed in an open forum. Experienced researchers participating are ready to give advice. Discussion may include the following issues: Publications, research in the new position, collaboration with the colleagues, teaching load etc.

(3) Graduate Student Forum (organized by Mary Atwater and Joe Krajcik)

This Forum aims to guide and encourage beginning researchers by discussing various problems that may arise, e.g. when completing the dissertation or searching for a job. Attendees can question a panel of experienced colleagues on all matters of academic interest.

We look forward to seeing you in Baltimore. Please let us know if you have any new ideas to make NARST membership even more valuable to members.

**Alan Harrison:** a.harrison@cqu.edu.au

**Reinders Duit:** duit@ipn.uni-kiel.de

## Small Things to Reduce Your Ecological Footprint

by **Teddie Phillipson-Mower and Xenia Meyer**

Organizations around the world are taking an active stand on reducing the environmental footprint that is produced as a result of their annual conferences. NARST is committed to finding ways to join this effort. Conversations have begun to look for ways that NARST, as a community of science educators, can model more proactive stewardship.

The 2008 Conference Headquarters will be the Baltimore Waterfront Marriott Hotel. As part of a five-year goal to reduce emissions by 6% per guest room by 2010, Marriott International launched an initiative, which resulted in reduced emissions of 2% per guest room in 2006. For their efforts they were recognized as an ENERGY STAR Partner of the Year for 2005 and 2006 and received the Sustained Excellence Award in 2007 ([www.energystar.gov](http://www.energystar.gov)). Information about Marriott's commitment to the environment can be found at [www.marriott.com/marriott.mi?page=environmentalInitiatives](http://www.marriott.com/marriott.mi?page=environmentalInitiatives).

On a more personal level, every NARST member can do several small things that will help reduce our impact on the environment when planning for and attending the meeting. Here are a couple of ideas:

- Pay the extra amount to fly direct. The amount of fuel used (and therefore emissions produced) is much greater during take off. Idling time during loading and queuing for take off also adds to the burden.
- Bring a reusable drinking vessel with you. If you are purchasing one for the first time do not purchase plastic.
- Develop community. Arrange to share transportation or use public transportation between the airport and the hotel.
- "When not in use, turn off the juice." Turn off lights, television, etc. when not in use. Even better, unplug vampire "standby" energy wasters, such as cell phone and computer chargers, after charging is complete. Open those drapes during the day to provide natural lighting to your room.
- Decrease your time in the shower.
- Use your towels more than once. Ask housekeeping not to change your linens every day.
- Walk up and down stairs instead of taking escalators and elevators.
- Eat local and within walking distance of the hotel.
- Think ahead and submit your paper to the NARST CD prior to the conference. This will minimize the need for handouts. If handouts are necessary use the double sided printing option.
- Use your nametag holder from a previous years instead of asking for a new one every year.

It has been suggested that NARST approve an environmental ethic or environmental stewardship position statement, especially as it relates to conference planning. Your participation in and contributions to this effort are welcomed and appreciated. If you are interested participating in further discussions along this line, please contact Teddie Phillipson-Mower ([t.phillipsonmower@louisville.edu](mailto:t.phillipsonmower@louisville.edu)) or Xenia Meyer ([xenia.meyer@cornell.edu](mailto:xenia.meyer@cornell.edu)) and plan to meet during the 2008 conference.



Xenia Meyer, doctoral student at Cornell University

## HELP PROMOTE NARST AT NSTA! *Call from the External Policy and Relations Committee*

By Lynn Bryan, Chair

The External Policy and Relations Committee has reserved a booth for NARST in the Exhibition Hall at the 2008 NSTA meeting in Boston, Massachusetts. We want to raise our visibility among K-12 classroom teachers and spread the word about what NARST has to offer. We need your help!

If you are a NARST member and will be at the 2008 NSTA meeting, please consider volunteering to staff the NARST booth. It is a great way to meet science teachers, promote the mission of NARST, and provide an important service to our organization.

If you are willing to volunteer a few hours of your time, please send an email with the following information to Lynn Bryan at labryan@purdue.edu:

1. Your name and contact information (address, email, phone)
2. Day and time slot (see below) that you are willing to staff the booth.

In the subject line of your email, please indicate NARST BOOTH.



Lynn Bryan, Chair of External and Relations Committee

### Volunteer to staff the 2008 NARST booth at NSTA

Days and times we need volunteers:

<i>Thursday, March 27</i>	<i>Saturday, March 29</i>
10 am - 12 noon	9 - 11 am
12 noon - 2 pm	11 am - 1 pm
2 - 4 pm	1 - 3 pm
4 - 6 pm	3 - 5 pm

#### *Friday, March 28*

9 - 11 am  
11 am - 1 pm  
1 - 3 pm  
3 - 5 pm